

XIII. *Descriptions of new genera, and of some recently discovered species of Australian Phytophaga.*

By J. S. BALY, F.L.S.

[Read 5th June, 1871.]

List of Species.

1. <i>Duboulaia</i> (n. g.) <i>fulvipennis</i> .	12. <i>Ditropidus fulvus</i> .
2. <i>Carpophagus excavatus</i> .	13. „ <i>dimidiatus</i> .
3. <i>Elaphodus albo-hirsutus</i> .	14. „ <i>biplagiatus</i> .
4. <i>Ditropidus carbonarius</i> .	15. <i>Lachnubothra Hopei</i> .
5. „ <i>hirticollis</i> .	16. „ <i>Breweri</i> .
6. „ <i>Duboulai</i> .	17. „ <i>integra</i> .
7. „ <i>strigosus</i> .	18. „ <i>Wilsoni</i> .
8. „ <i>rufo-cupreus</i> .	19. „ <i>Waterhousei</i> .
9. „ <i>Odewahnii</i> .	20. „ <i>Saundersii</i> .
10. „ <i>fasciatus</i> .	21. „ <i>distincta</i> .
11. „ <i>tarsatus</i> .	22. „ <i>Duboulai</i> .

Fam. SAGRIDÆ.

Genus DUBOULAIA, n. g.

Corpus subelongatum, modice convexum, non metallicum, pube griseo adpresso dense vestitum; *caput* exertum, modice elongatum; *oculis* integris, granulosis, vix prominulis; *palpis maxillaribus* articulo ultimo ovato, apice obtuso; *mento* transverso; *ligula* apice bifida; *antennis* corporis dimidio fere æqualibus, filiformibus. *Thorax* subcordiformis, latitudine non longior, angulis anticis indistinctis; *elytra* oblonga, convexa, glabra, irregulariter punctata; *pedes* robusti; *femoribus* posticis incrassatis, subtus spina compressa trigonata armatis; *unguiculis* simplicibus; *prosternum* coxis æquialtum, postice non prolongatum; *pygidium* elytris non obtectum.

This genus must take an intermediate place between *Megamerus* and *Prionesthis*, with the former it agrees in the form of the thorax, and in the emarginate *ligula*, but differs in the shorter head and antennæ, less prominent eyes, and in the form of the apical joints of the maxillary palpi; from the latter, although agreeing in the form of the maxillary palpi, it differs greatly, both in the form of the thorax, and also in having the hinder thighs armed beneath.

Duboulaia flavipennis.

Subelongata, modice convexa, piceo-nigra, griseo-sericea, antennis, clypeo antice, labroque fusco-fulvis; tibiis tarsisque obscure piceis; thorace crebre punctato, dense albo sericeo; elytris tenuiter punctatis, obscure fulvis, sutura anguste picea.

Long. $8\frac{1}{2}$ lin.

Hab.—Champion Bay, Western Australia; collected by Mr. Duboulay.

Antennæ half the length of the body, fusco-fulvous; front impressed with a longitudinal groove, which extends downwards as far as the apex of the clypeus; surface on either side distinctly punctured, clothed with adpressed white hairs; clypeus large, pentagonal, thickly punctured; its lower edge, together with the labrum obscure fulvous; thorax as broad as long, sides rounded and dilated in front, constricted behind the middle; above moderately convex, somewhat flattened on the disc, closely covered with small, but deep and well-defined punctures; surface clothed with adpressed whitish hairs; elytra much broader than the thorax, oblong, glabrous, shining fulvous, the suture narrowly edged with piceous; whole surface faintly wrinkled, rather closely but finely punctured; hinder thighs thickened, armed beneath with a large, flat, triangular tooth.

Genus CARPOPHAGUS, McLeay.

Carpophagus excavatus.

Anguste oblongus, piceo-niger, pube adpresso griseo dense vestitus; thorace nigro, irregulariter excavato et foveolato, interspatiis glabris, nitidis; elytris oblongis, postice paullo attenuatis, piceis, nitidis, profunde excavato-foveolatis; foviis magnis, substriatim dispositis, griseo-hirsutis, interspatiis glabris, nitidis, rugulosis.

Long. 10 lin.

Hab.—Champion Bay, Western Australia; collected by Mr. Duboulay.

Thorax longer than broad, subconic; sides more quickly converging near their apex; above subcylindrical, irregularly excavated, densely clothed with adpressed hairs; interspaces between the excavations smooth, gla-

brous, shining black; on the centre of the disc these interspaces are small, detached, and wart-like, but on the sides of the thorax they are much larger and irregularly confluent; elytra oblong, much broader at the base than the thorax, slightly narrowed towards their apex; surface covered with large, irregular, deeply excavated foveæ, whose surfaces are thickly clothed with short adpressed griseous pubescence; these foveæ, which are arranged in about ten longitudinal rows on each elytron, cover nearly the whole disc, the spaces between the foveæ being shining glabrous, coarsely wrinkled, and obscure rufo-piceous; pygidium rufo-piceous.

The specimen from which I have made the above description is (judging from the shorter antennæ and from the very slight enlargement of the hinder femora) a ♀; the ♂ probably differs in colour from the ♀, in the same way as in *C. Banksiæ*; in that species, the ♂ is obscure fulvous, whilst the ♀ is lead-coloured.

Fam. CRYPTOCEPHALIDÆ.

Genus ELAPHODES, Suffr.

Elaphodes albo-hirsutus.

Anguste oblongus, obscure cupreus, pube albido adpresso vestitus, antennarum dimidio basali, labro pedibusque (femoribus anterioribus dorso, posticisque totis exceptis) fulvis, tarsis antennarumque dimidio apicali piceis; thorace subremote punctato; elytris tenuissime granulosis, minute transversim rugulosis, tenuiter et subremote punctatis, punctis ad latera seriatim dispositis.

Long. $1\frac{1}{4}$ lin.

Hab.—Western Australia, Champion Bay.

Head thickly clothed with long white hairs; front impressed with a longitudinal groove; mouth fulvous, apex of jaws black; antennæ rather longer than the head and thorax, the six outer joints moderately dilated, black; thorax twice as broad as long at the base, sides nearly parallel behind the middle, rounded and converging in front; apex of the basal lobe entire, its surface very slightly reflexed; scutellum broadly oblong-ovate; elytra not broader than the thorax, rather more than twice its length, their sides parallel; the humeral callus moderately prominent.

Genus DITROPIDUS, Erichs.

Ditropidus carbonarius.

Subquadratus, postice paullo attenuatus, niger, nitidus, antennarum basi, labro mandibulisque (his apicè exceptis) fulvis, femoribus anticis, tibiis apice, tarsisque obscure piceis; thorace tenuiter punctato; elytris tenuissime punctato-striatis, interstitiis planis, impunctatis, striis duabus ad latum subsulcatis, interstitiis lateralibus leviter convexis.

Long. 2 lin.

Hab.—Western Australia.

Head finely but distantly punctured, nearly glabrous, only a few small white adpressed hairs being visible here and there on the surface; eyes distant, face impressed with a faint longitudinal line; antennæ slightly longer than the head and thorax, five outer joints moderately dilated, black, the remaining joints fulvous; thorax twice as broad at the base as long, sides rounded and converging from base to apex; surface finely but not very closely punctured, the puncturing more crowded on the sides; basal lobe distinctly notched, obsoletely reflexed; elytra broader at the base than the thorax, twice its length, sides slightly narrowed from the shoulders backwards; surface very finely punctate-striate, the interspaces flat, impunctate; two outer striæ subsulcate, their interspaces slightly convex.

Ditropidus hirticollis.

Subquadratus, postice paullo attenuatus, convexus, niger, pube adpresso albidò vestitus, antennarum basi labroque rufo-piceis; abdomine corporeque supra (antennis apicè exceptis) cupreus; thorace minute punctato, albo-hirsuto; elytris distincte striato-punctatis, glabris, interstitiis planis, apicem versus leviter convexiusculis, ad latera convexis, subcostatis.

Long. 1¼ lin.

Hab.—Western Australia.

Upper half of head closely clothed with adpressed white hairs; lower half of face glabrous; five upper joints of antennæ moderately dilated; five basal joints

obscure rufo-piceous; labrum rufous; thorax twice as broad at the base as long; sides rounded and converging from base to apex; surface finely and subremotely punctured, covered with adpressed white hairs; basal lobe slightly reflexed, its apex very feebly notched; scutellum oblong, its apex acute; elytra slightly broader at the base than the thorax, regularly punctate-striate; interspaces plane, smooth, slightly convex towards the apex of the elytra, those near the outer border raised and subcostate for their whole length; lower surface of abdomen and pygidium closely clothed with adpressed white pubescence, finely rugose-punctate; pygidium as broad at its base as long; on its medial line is seen a faint longitudinal ridge.

Ditropidus Duboulai.

Oblongus, convexus, niger, nitidus, capite thoraceque cupreo-æneis, mandibulis apice, antennarum articulis sex basalibus subtus, femoribus anticis subtus, tibiis anticis apice, labroque obscure rufo-fulvis, thorace crebre sed tenuissime strigoso-punctato, basi linea brevi transversa impresso; elytris obscure viridi-æneis, subfortiter striato-punctatis, interstitiis leviter convexis, transversim rugulosis.

Long. 1 lin.

Hub.—Champion Bay.

Head remotely and very finely punctured, clothed with long griseous hairs; six lower joints of antennæ obscure rufous, stained above with black, the remaining joints entirely black; apex of jaws also rufous; thorax slightly broader than the elytra; sides rounded, nearly straight and parallel at the base, obliquely converging from the middle to the apex; basal lobe slightly reflexed, separated from the disc by a slight but well-defined transverse groove; disc very finely punctured, somewhat closely covered with faintly impressed, longitudinal striæ; elytra half as long again as the thorax, distinctly punctate-striate, interspaces on the inner disc obsolete, those on the outer disc distinctly convex, transversely rugulose.

Ditropidus strigosus.

Breviter oblongus, obscure cupreus, pube adpresso albido dense vestitus, femoribus tibiisque fulvis, piceo

tinctis, tarsis piceis; supra nitido-cupreus, antennis extrorsum nigris, his basi labroque fulvis; thorace pube adpresso albido vestito, disco remote, lateribus subremote-punctato; elytris glabris, sat fortiter punctato-striatis, interspatiis fere planis ad apicem ut ad latera convexis, dense transversim rugulosis.

Long. $\frac{1}{4}$ lin.

Hab.—Champion Bay; collected by Mr. Duboulay.

Head clothed with adpressed white hairs; surface finely but distantly punctured; labrum and lower half of antennæ fulvous, outer half of the latter black; eyes large, reniform; thorax as broad at the base as the elytra; sides obliquely converging and slightly rounded from base to apex; upper-surface clothed with adpressed white hairs; disc remotely, sides rather more closely, impressed with moderately deep punctures; basal lobe slightly reflexed; scutellum semi-ovate, rounded at the apex, its surface shining, impunctate; elytra about one-half longer than broad, nearly parallel; surface rather densely punctate-striate, interspaces nearly plane on the anterior half of the inner disc, moderately convex towards the apex of the latter, and also on the outer disc, their whole surface closely covered with fine transverse rugosities; legs fulvous, stained with piceous; tarsi pitchy-black.

Ditropidus rufocupreus.

Subquadratus, convexus, postice paullo attenuatus, pallide rufo-piceus, supra rufo-cupreus, antennis extrorsum nigris, thorace distincte punctato; elytris striato-punctatis, interstitiis planis, ad latera pone medium convexis.

Long. $1\frac{1}{4}$ - $1\frac{3}{4}$ lin.

Hab.—Western Australia, Champion Bay.

Head clothed with adpressed whitish hairs, surface distinctly punctured, impressed on the upper half of the face with a longitudinal groove; jaws black; antennæ equal to the head and thorax in length, slender, five upper joints only slightly dilated, four upper joints blackish-piceous; thorax twice as broad at the base as long, sides rounded and converging from base to apex; surface impressed with numerous distinct but shallow punctures;

basal lobe distinctly notched, its surface on the same plane as the disc of the thorax; scutellum regularly ovate, its apex acute; elytra slightly but distinctly broader at their base than the thorax, twice the length of the latter; surface regularly punctate-striate, interspaces plane, very minutely and distantly punctured, those on the hinder half of the outer disc convex, subcostate; on the upper half of the inner disc are a few very faint irregular rugæ; pygidium finely rugose-punctate, clothed with adpressed white hairs.

Ditropidus Odewahnii.

Oblongus, cuprens, nitidus, antennis extrorsum nigris, his basi, labro pedibusque piceo-fulvis; thorace subremote punctato, lateribus substrigoso; elytris distincte punctato-striatis, interspatiis impunctatis, fere planis, apicem versus et ad latera leviter convexiusculis.

Long. $\frac{1}{2}$ - $\frac{3}{4}$ lin.

Hab.—South Australia.

Head remotely punctured, sparingly clothed with adpressed griseous hairs, face impressed with a longitudinal groove; eyes large, slightly notched; six lower joints of antennæ fulvous, the five outer black; thorax as broad at the base as the elytra, sides rounded and converging from base to apex; upper surface remotely punctured, the punctures oblong, rather more crowded on the sides; surface between the punctures smooth and impunctate on the disc, obsoletely strigose on the sides; elytra nearly parallel, scarcely narrowed posteriorly, regularly punctate-striate, punctures large but not very deeply impressed, oblong; interspaces smooth and shining, impunctate, faintly wrinkled when seen under a strong lens; on the disc nearly plane, on the inner disc near the apex, and on the outer disc, slightly convex.

Ditropidus tarsatus.

Subquadratus, postice angustatus, ♀ magis oblongus, sordide fulvus, subopacus, antennis extrorsum, thoracis margine basali, scutello, tarsisque nigro-piceis; elytris sulcato-striatis, striis fortiter punctatis; puncto humerali, sutura postice, margine apicali, maculisque tribus ante apicem transversim positis, pallide piceis; abdomine fusco.

Long. 1-1 $\frac{3}{4}$ lin.

Hab.—Western Australia, Champion Bay.

Head closely covered with adpressed fulvous hairs; front impressed with a longitudinal groove; outer half of antennæ pitchy-black; thorax as wide as, or slightly wider at its base, than the elytra, sides regularly rounded and converging from base to apex; disc closely punctured, strigose-punctate on the sides; in the middle, extending from the extreme apex of the basal lobe half-way across the disc is a faint longitudinal ridge, on either side of which, just in front of the basal margin, is a broad but shallow and ill-defined transverse excavation; basal margin narrowly edged with black; elytra subnitidous, scarcely equal in width to the base of the thorax, narrowed from base to apex; disc below the basal margin broadly but faintly depressed; each elytron with eleven rows of sulcate striæ, the first short; each stria impressed with a regular row of large round punctures, more or less stained with fuscous; interspaces slightly raised, obsoletely convex on the inner disc, subcostate near the outer margin, distinctly punctured, here and there faintly wrinkled; a spot on the humeral callus, and three large ill-defined patches placed transversely across the disc nearly half-way between its centre and the apex, obscure fuscous; of these patches the middle one is common and transverse, the two others oblong, and placed one on either side on the outer disc, and attached to the outer border of the elytron; the hinder half of the suture, the apical border of the elytra, and sometimes the hinder half of the lateral border, are narrowly edged with fuscous; knees stained with piceous, tarsi pitchy-black.

Ditropidus fulvus.

Oblongus, fulvus, subnitidus, thorace sat crebre punctato, substrigoso, lateribus rugoso-punctatis, margine basali anguste nigro-marginato; elytris punctato-striatis, punctis magnis, rotundatis, leviter impressis; interspatiis obsolete convexiusculis, ad apicem magis elevatis, ad latera subcostatis.

Long. 1 lin.

Hab.—Western Australia.

Head deeply punctured, glabrous; antennæ fulvous, the inner angles of the five upper joints alone being stained with piceous; thorax as broad at its base as the elytra; sides obliquely converging and slightly rounded from base to apex, surface coarsely punctured, substrigose, rugose-punctate on the sides; basal lobe slightly reflexed; basal margin narrowly edged with piceous; scutellum pale, brownish-fulvous; elytra broadly oblong, scarcely narrowed posteriorly; surface of each elytron with eleven rows of large round shallow punctures, the first row short; interspaces smooth, nearly flat on the inner disc, convex towards the apex, more strongly raised and almost costate near the outer margin.

This species strongly resembles *Cryptocephalus minutus* and its allies, in habit and coloration.

Ditropidus dimidiatus.

Subquadratus, rufus, nitidus, antennis extrorsum, pedibus intermediis, tarsisque anticis rufo-piceis, scutello, elytris, metasterno, abdomine, pedibusque posticis nigris.

Long. $1\frac{1}{2}$ lin.

Hab.—Northern Australia, Brisbane?

Head closely punctured, rugose-punctate between the eyes, the latter distant, reniform, front impressed with a faint longitudinal groove; thorax as broad at its base as the elytra, sides rounded and converging from base to apex; upper surface distinctly and somewhat closely punctured; elytra slightly longer than broad, slightly narrowed posteriorly; surface strongly punctate-striate, interspaces flat, impunctate, three outer interspaces thickened, subcostate.

Ditropidus biplagiatus.

Subquadrato-ovatus, postice paullo angustatus, niger, nitidus, antennis extrorsum piceis, basi labroque rufo-testaceis, thorace rufo, tenniter nigro marginato; elytris tenuiter punctato-striatis, utrinque plaga magna rufa, discum fere amplectente, ornatis; femoribus obscure rufo-piceis aut nigris.

Long. $1\frac{1}{4}$ lin.

Hab.—Moreton Bay; North-West Australia.

Head broad, flat, impressed with moderately large but shallow punctures; clypeus and lower portion of face slightly wrinkled; middle of face with a shallow longitudinal groove; four or five outer joints of antennæ piceous; eyes distant, uniform; thorax nearly as broad at the base as the elytra, sides obliquely narrowed from base to apex, slightly rounded near the apex; disc smooth, rather closely covered with shallow punctures; elytra about a third longer than broad, slightly narrowed posteriorly, each elytron with eleven rows of moderately impressed oblong punctures, the first short; interspaces distantly and minutely punctured, plane on the anterior portion of the middle disc, faintly raised on the front half of the inner disc, slightly convex on the hinder half, those on the outer disc near the outer margin raised and convex for their whole length: on each elytron is a large subtrigonal rufous patch occupying the middle of the disc.

Ditropidus fasciatus.

Breviter oblongus, obscure æneo-niger, nitidus, albo-sericeus, antennis basi fulvis, dorso piceis, articulis quinque ultimis modice dilatatis, nigris; thorace elytris-que obscure cupreis, illo subfortiter punctato, albo-sericeo; his glabris, tenuiter punctato-striatis, interstitiis planis, iis ad latera leviter convexis; utrisque fascia lata obliqua, fulva, a humero fere ad suturam extensa ornatis.

Long. $1\frac{1}{2}$ - $1\frac{3}{4}$ lin.

Hab.—Champion Bay.

Head somewhat closely punctured, vertex cupreous, labrum and six basal joints of antennæ obscure fulvous, the latter stained above with piceous; thorax twice as broad as long, sides rounded and converging from base to apex, slightly sinuate just before the hinder angle, the latter somewhat compressed, and produced slightly backwards; basal lobe feebly notched, obsoletely reflexed; surface on either side the basal lobe and extending to the hinder angles distinctly depressed (this depression causes the disc of the thorax to appear unusually convex);

surface distinctly punctured, the puncturing rather distant on the disc, closer on the sides; scutellum obovate, its apex obtuse; elytra not broader at their base than the thorax, twice its length, finely but distinctly punctate-striate; interspaces plane; on the outer margin the two outer striae are sulcate, and their interspaces convex.

Genus LACHNABOTHRA, Saunders.

Trans. Ent. Soc. Lond., vol. iv. p. 294.

The genus *Lachnabothra* was formed by Mr. W. W. Saunders in 1847, on a single female example in the cabinet of the Rev. F. W. Hope; this insect being figured and described by him as *Lachnabothra Hopei*; the Suffrian, who subsequently (in 1859) monographed Australian Cryptocephalidæ, sank *Lachnabothra*, and placed Mr. Saunders' species in the fourth section of Erichson's genus *Cudmus*; both authors appear to have known the ♀ only, but more than twenty years previously a ♂ specimen belonging to the genus, was described and figured by Dr. Klug (Ent. Mon. p. 159, tab. vi. fig. 9, 1824) under the name of *Chlamys* (?) *braceata*; Klug, who was unacquainted with the locality of his insect, pointed out its affinity to the Cryptocephalidæ, thus indicating its true position. For some years' after the publication of Mr. Saunders' and Dr. Suffrian's works, the species were very rare in cabinets, but latterly, owing to the exertions of Messrs. Waterhouse, Wilson, and Odewahn, in South Australia, and of various other collectors in the Western, and other parts of the continent, many specimens of both sexes of species belonging to the genus have become known to us. I myself, possess no less than eight distinct forms (the descriptions of which I have given below), in my own collection.

The characters of the males, as distinguished from the females, are as follows:—

Antennæ much longer than the body; the ultimate joint compressed, generally broader than the penultimate.

Thorax more or less gibbose, the gibbosity divided into two distinct protuberances.

Hinder thighs thickened; basal joint of anterior tarsus usually dilated.

The other characters are as in the ♀; both sexes may be known from the species of the genus *Cadmus*, by the sculpture and dense metallic pubescence of the thorax; the sculpture of the elytra is also peculiar and constant in all the species known to me.

I have not been able satisfactorily to identify Dr. Klug's insect with any of the species described below; it is, however, very closely allied to *L. Waterhousei*, and may possibly prove to be the same insect.

Lachnabothra Hopei, Saunders.

Trans. Ent. Soc. vol. iv. p. 295, pl. xv. fig. 5.

Cadmus Hopii, Suffrian, Lin. Ent., vol. xiii. p. 85.

Subquadrato-oblonga, pallide rufo-picea, pilis pallide aureis vestita, thorace dense aureo-sericeo; elytris rugosis, apice elevato-vittatis, disco interno tuberculis oblongis nonnullis, disco externo cretis irregularibus, inter se confluentibus et rete laxum formantibus, instructis; pedibus antennisque obscure fulvis.

Mas. Thoracis disco bituberculato; antennarum articulo ultimo dimidio apicali nigro, penultimo distincte latiori, obcuneiformi, apice ipso angulato; tarsorum anticorum articulo primo paullo dilatato, oblongo, basi attenuato, apice truncato.

Long. 2-2½ lin.

Hab.—South Australia, Melbourne, Adelaide.

Head clothed with adpressed golden hairs; face impressed with a longitudinal groove, which extends from the vertex to the apex of the clypeus; surface of face deeply punctured; clypeus transverse, triangular, sides of the triangle slightly convex, anterior border slightly concave; hinder surface punctured, clothed with adpressed hairs, anterior portion smooth, impunctate, glabrous; labrum often stained with piceous; jaws piceous; thorax as broad at its base as the thorax; sides diverging at the base, thence obliquely converging to the apex in the ♂, regularly rounded in the ♀, the apex itself quickly

rounded; upper surface convex, covered with numerous shallow pits or excavations, anterior half of disc closely punctured, subrugose, hinder half finely and subremotely punctate; whole surface densely clothed with silky golden hairs, which radiate from the excavated pits; on either side the centre of the disc, in the ♂, is a broad obtuse protuberance; scutellum densely clothed with adpressed golden hairs; elytra sparingly clothed with golden hairs, rugose-punctate, hinder third with seven or eight raised, broad, longitudinal ridges; inner disc with five oblong, longitudinally placed tubercles, which are scattered over the anterior two-thirds of its surface; outer disc coarsely rugose; on its surface are several irregularly raised reticulations, which enclose large, ill-defined, irregular spaces; these ridges are less defined in the ♀ than in the other sex; abdomen and legs clothed with pale golden hairs.

Lachnabothra Breweri.

Subquadrato-oblonga, rufo-picea, clypeo nigro-piceo, pube adpressa aurea vestita, thorace dense aureo-sericeo; elytris rugosis, disco interno tuberculis elongatis, iis prope apicem incrassatis, instructo, disco externi apice elevato-vittato, antice irregulariter elevato-reticulato.

Mas. Thoracis disco leviter gibboso, indistincte bituberculato, antennarum articulo ultimo (basi excepta) nigro, penultimo latiori, a basi apicem versus dilatato, apice angulato, acuto; femoribus posticis sat valde incrassatis; tarsorum anticorum articulo basali modice dilatato.

Long. 2-2½ lin.

Hab.—Albany, King George's Sound; Swan River.

Thorax as wide at the base as the elytra, sides rounded and slightly diverging at the extreme base, thence rounded and obliquely converging to the apex; disc excavated here and there into shallow pits (about fourteen in number); surface densely clothed with golden sericeous hairs, which radiate from the centres of the shallow excavations; centre of the disc in the ♂ slightly gibbose, the gibbosity transverse, elevated on either side into a small illdefined tubercle; elytra coarsely rugose-punctate,

inner disc with a number of elongated and oblong tuberosities, several of these placed near the apex are greatly thickened and enlarged; basal half of outer disc covered with irregular raised reticulations, the apical half elevatovittate; running down the middle of each elytron, and separating the inner from the outer disc, is a very irregular raised line, which here and there sends off short spurs on either side.

This species is closely allied to *L. Hopei*, and is possibly a local form of that species; both sexes may be known by the much stouter and broader apical tuberosities of the inner disc; the ♂ also has the hinder thighs more strongly thickened.

Lachnabothra integra, Suffr., MS.

Oblongo-quadrata, rufo-picea, pilis adpressis pallide aureis vestita, antennis, tibiis tarsisque obscure fulvis, femoribus posterioribus intus nigro-piceo maculatis; thorace dense pallido aureo-sericeo; elytris rugosis, disco interno tuberculis oblongis, disco exteriori lineis elevatis longitudinalibus, instructis.

Mas. Thorace dorso leviter gibboso, gibbo medio longitudinaliter sulcato; antennarum articulo ultimo (basi excepta) nigro, penultimo vix latiori, compresso, a basi apicem versus leviter ampliato, apice ipso angulato; femoribus posticis modice incrassatis, tarsorum panticorum articulo basali leviter dilatato, oblongo, apice truncato.

Long. 2-2 $\frac{3}{4}$ lin.

Hab.—South Australia, Adelaide, Gawlertown.

Thorax similar in form to that of *L. Hopei*, disc in the ♂ slightly gibbose, the gibbosity divided by a distinct longitudinal groove; pubescence clothing the surface pale golden sericeous; basal margin narrowly edged with black; elytra rugose-punctate, inner disc with seven or eight oblong longitudinal protuberances, placed irregularly on the surface from base to apex; at the base near the scutellum is also a longitudinal ridge, which extends backwards for rather more than a fourth of the elytron; outer disc coarsely rugose; on its surface are two somewhat irregular longitudinal ridges, the first commencing a short distance within, the second immediately without

the humeral callus; the first of these terminates at the commencement of the last fifth of the elytron, the second is slightly longer, and approaches somewhat nearer to the apex; in addition, on the hinder third, are four or five coarse longitudinal ridges.

The form of the thorax will separate the ♂ of the insect before us from the same sex of any of the hitherto known species.

Lachnabothra Wilsoni, Suffr., MS.

Subquadrato-oblonga, nigro-picea, pilis argenteo-aureis adpressis vestita, tibiis basi antennisque obscure fulvis; thorace dense argenteo-aureo sericeo; elytris profunde rugoso-punctatis; prope marginem lateralem irregulariter verrucosis, castaneis, tuberculis plurimis oblongis magnis, nigro-piceis, nitidis, instructis.

Mas. Thoracis disco utrinque tuberculo nitido instructo; antennarum articulo ultimo penultimo paullo latiori, dimidio apicali nigro; femoribus modice incrassatis; tarsorum anticorum articulo basali paullo ampliato, oblongo-ovato, apice truncato.

Long. 2-2½ lin.

Hab.—South Australia, Gawlertown, Mr. Odewahn; Adelaide, Messrs. Wilson and Waterhouse.

Thorax as broad at its base as the elytra, sides rounded at the base, thence converging to the apex in the ♂, lateral margin slightly sinuate just before the middle; in the opposite sex the sides are rounded and diverging at the base, slightly flattened from thence to beyond the middle, then rounded and converging to the apex; disc irregularly pitted, but less distinctly so than in *L. Hopei*, densely clothed with pale metallic sericeous hairs, which radiate as usual from the centres of the various depressions; disc in the ♂ elevated on either side of its middle into a distinct gibbosity, the apex of which is crowned with a shining tubercle; immediately behind each gibbosity is an ill-defined transverse excavation, which runs inwards nearly to the medial line of the thorax, leaving the latter only in the form of a narrow longitudinal ridge; elytra castaneous, coarsely and deeply rugose-punctate, irregularly verrucose near the lateral margin, covered with large shining, oblong, nigro-piceous tuberosities; those on the anterior portion of the outer disc irregular.

This is one of the best defined species of the genus, it may be at once known by the peculiar sculpturing of the elytra.

Lachnabothra Waterhousei.

Subquadrato-oblonga, pallide picea, aureo-sericea; antennis tarsisque fulvis; thorace hic illic excavato, dense aureo-sericeo; elytris nigro-piceis, rude rugoso-punctatis, basi et apice elevato-vittatis, disco interno tuberculis oblongis magnis instructo, disco externo laxe elevato-reticulato; vittis tuberculisque rufo-piceis.

Mas. Thoracis disco utrinque in gibbum validum subconicum elevato; antennarum articulo ultimo apice nigro, penultimo latiori, apice obtuse angulato; femoribus posticis modice incrassatis; tarsorum anticorum articulo basali non dilatato, secundo æquilato.

Long. 2 lin.

Hab.—South Australia, Adelaide.

Thorax as wide at the base as the elytra, sides rounded and diverging at the extreme base, nearly straight and parallel in the middle, thence rounded and converging to the apex; surface excavated into a number of shallow pits, densely clothed with adpressed golden hairs, which radiate from the centres of the pits; in the ♂ (the only sex known to me) the disc is strongly elevated on either side into a large subconical protuberance; elytra sparingly clothed with adpressed hairs, very coarsely rugose-punctate, the base with three short, but strongly raised longitudinal ridges, which extend backwards rather more than one-third the length of the elytron; they are placed, one near the suture commencing with a thickened base, at the apex of the scutellum, another half-way between the suture and the humeral callus, and a third a short distance within the latter; in the interspace between the first and second ridge, is seen a small tubercle, and between the second and third is a slightly raised, ill-defined, longitudinal line; on the hinder two-thirds of the inner disc are placed seven or eight large oblong tuberosities; outer disc very irregularly and coarsely elevate-reticulate, its hinder portion covered with raised longitudinal vittæ; one of these, the second from the suture, is continued upwards along the disc as far as the apex of the humeral callus; hinder thighs moderately thickened.

This species, of which I have seen three specimens (all males), varies like most of the others, in coloration; usually it is dark piceous, the raised markings on the elytra being pale rufo-piceous, the legs and abdomen, and the upper part of the head are also more or less rufous, and stained with dark piceous; the antennæ (the apical joints excepted) and tarsi are pale fulvous, the basal joint of the latter being sometimes stained with fuscous.

L. Waterhousei may be known by the undilated basal joint of the anterior tarsus, by the strongly raised tuberosities of the thorax, and by the moderately dilated hinder thighs; these characters taken together, will at once separate it from its congeners.

Lachnabothra Saundersi.

Subquadrato-oblonga, rufo-picea, thorace basi elytris distincte latiori, dense aureo-sericeo, elytris pube aureo minus dense vestitis; rugosis, disco interiori tuberculis oblongis nonnullis (circa 7) instructo, disco exteriori rude rugoso, elevato-reticulato, ad apicem elevato-vittato.

Mas. Thoracis disco leviter bituberculato; antennarum articulo apicali (basi excepta) nigro, penultimo distincte latiori, apice oblique truncato; femoribus valde incrassatis; tarsorum anticorum articulo basali late ampliato, semi-ovato, lateribus inæqualibus.

Long. $2\frac{1}{4}$ lin.

Hab.—Australia.

Thorax distinctly broader at the base than the elytra, sides slightly diverging at the base, thence rounded and converging to the apex, hinder angles armed with a small obtuse tooth, lateral margin near the base irregularly crenulate; surface finely rugose-punctate; on either side the medial line in the ♂ is a large but slightly elevated gibbosity, the apex of which is crowned by a small shining tubercle; elytra rugose-punctate, whole surface clothed with adpressed golden hairs; inner disc with a number of large oblong tubercles, placed irregularly from base to apex of the elytron; outer disc coarsely rugose, the interspaces thickened and forming small irregular reticulations and rugosities over the whole surface; on the apical third are four or five ill-defined (owing to the general rugosity of the surface) raised longitudinal vittæ.

Lachnabothra distincta.

Subquadrata, oblonga, rufo-picea, supra nigro-picea, aureo-sericea, antennis fulvis; thorace basi elytris paullo latiori, dense aureo-sericeo; disco hic illic leviter excavato; elytris rugosis, disco interiori tuberculis nonnullis, disco exteriori vittis elevatis, iis ante medium irregulariter flexuosis, instructis.

Mas. Thoracis disco utrinque in gibbum validum elevato; antennarum articulo ultimo, a basi apicem versus paullo dilatato, penultimo paullo latiori, apice rotundato, dimidio apicali nigro; femoribus posticis sat valde incrassatis; tarsorum anticorum articulo basali sat late dilatato, semi-ovato, lateribus inæqualibus.

Long. $2\frac{1}{2}$ lin.

Hab.—North-West Australia.

Thorax very slightly broader at the base than the elytra; sides rounded at the base, thence obliquely rounded and converging to the apex; hinder half of lateral border finely crenulate; surface rugose-punctate, excavated here and there into shallow pits; clothed with adpressed golden hairs, which radiate from the centres of the shallow excavations; in the ♂ (the only sex known to me) the middle of the disc is raised on either side into a strong subconical protuberance, divided from its fellow in the medial line, by a longitudinal depression; elytra rugose, also clothed with adpressed golden hairs; inner disc with six or seven oblong tubercles, placed irregularly from base to apex; outer disc coarsely rugose, subverrucose near the outer border; commencing a short distance within the humeral callus, is an elevated ridge, which, irregularly flexuous about the middle of its course, runs backwards for four-fifths the length of the elytron; immediately external to the humeral callus, and connected at its base to the callus itself, is a second, much shorter than the first; on the hinder fifth of the outer disc, are placed five or six round longitudinal vittæ.

This male insect may easily be separated from the same sex of *L. Saundersi* (the ♀ of which is also unknown to me) by its more strongly raised thorax, as well as by the less dilated basal joint of the anterior tarsus.

Lachnabothra Duboulai.

Subquadrato-oblonga, picea, aut rufo-picea, pube pallide argenteo-aureis vestita; antennis, tibiis tarsisque fulvis; thorace dense pallide aureo-sericeo; elytris rugosis; pilis argenteo-aureis vestitis, tuberculis elongatis et oblongis disco interno positus, vittaque elevata irregulari hic illic ramulum emittente, a callo humerale fere ad apicem extensa instructis, disco exteriori apice elevato-vittato, antice rude et irregulariter elevato-reticulato.

Mas. Thoracis disco utrinque leviter gibboso, gibbis subconicis; antennarum articulo ultimo non dilatato, penultimo æquilato; femoribus posticis sat valde incrassatis; tarsorum anticorum articulo basali sat dilatato, semi-ovato.

Long. $2\frac{1}{4}$ - $2\frac{1}{2}$ lin.

Hab.—Western Australia; collected by Mr. Duboulay.

Thorax as wide at the base as the thorax, sides rounded and slightly diverging at the base, thence obliquely converging and slightly rounded to the apex in the ♂, more regularly rounded in the other sex; surface closely rugose, densely clothed with pale metallic adpressed hairs; on either side the disc in the ♂ is a large, broad, but slightly raised obtuse protuberance; elytra coarsely rugose, rather densely clothed, when freshly disclosed, with adpressed hairs; inner disc with a number of strongly raised longitudinal tuberosities, compressed and linear at the base, thicker and oblong towards the apex; on the middle portion of the surface of each elytron, separating the inner from the outer disc, is an irregular raised longitudinal line; outer disc very coarsely elevate-reticulate in front, elevate-vittate on its hinder portion towards the apex; these vittæ and protuberances are usually stained with black, but are more rarely concolorous with the disc of the elytron; thighs stained with black, strongly dilated.

The species before us, collected in some abundance by Mr. Duboulay, most closely resembles (especially when slightly rubbed) *L. Wilsoni*; both sexes may be separated from that species by the different sculpture of the elytra; the ♂ may be also known by the slender apical joint of the antennæ, as well as by the much less strongly elevated gibbosities of the thorax.

Fam. CHRYSOMELIDÆ.

Genus STRUMATOPHYMA, n. g.

Corpus postice attenuatum, apterum; *caput* exsertum, breve; *antennæ* filiformes, corpore dimidio longiores; *oculis* prominulis, elongatis; *palpis* maxillaribus articulo ultimo penultimo æquilato, apice truncato; *thorax* transversus dorso præsertim ad latera, excavatus; *elytra* oblonga, postice attenuata, suturâ intime convexa, dorso tuberculata, tuberculis seriatim dispositis; *pedes* simplices; *unguiculis* inermissis, basi leviter incrassatis; *acetabula* antica incompleta.

Type *Chalcolampra verrucosa*, Clark.

Chalcolampra undulatipennis, Clark, from Western Australia, also belongs to this genus.

Strumatophyma is separated from *Chalcolampra* by the apterous body, soldered elytra, and simple claws.

Genus SPHÆROLINA, n. g.

Corpus rotundato-ovatum, semiglobosum; *caput* exsertum, breve; *antennis* brevibus, capite cum thorace vix æqualibus, articulis quinque ultimis compressis, distincte dilatatis, clavam elongatam formantibus; *oculis* elongatis, subprominulis; *palpis* maxillaribus articulo ultimo penultimo vix æquilato, breviter ovato, apice truncato; *thorax* transversus; *elytra* thorace multo latiora apice late rotundata, tumida inordinatim punctata; *pedes* simplices; *unguiculis* muticis; *acetabula* antica incompleta.

Type *Lina Rajah*, Guérin; India.

The short antennæ distinguish the present genus from *Chrysomela*; it also differs in the form of the thorax: from *Lina* it may be known by the shorter form, and by the swollen elytra. *Lina Templetoni*, Baly, must also be placed in this genus.
